

management practice is based on the assumption that the majority of hand harvest has removed scallops from shallow SAV beds. By opening the first day of dredging on a rising or high tide, damage to SAVs by propeller scarring from vessels pulling dredges is minimized. Over the course of the first fishing day, dredgers will move out into deeper water to fish for bay scallops too deep for hand harvest (Street et al. 2005).

Additional ways to manage bay scallop dredging include setting up rotation areas as suggested by several researchers (Thayer and Stuart 1974; Fonseca et al. 1984; Bishop et al. 2005). This is based on the short time it takes for SAVs to recover from impacts caused by bay scallop dredges. Partitioning hand harvest areas from dredging areas based on depth would address the problem of prop scarring from bay scallop dredgers working in shallow grass beds. Closing all areas to dredging would eliminate impacts to SAVs and most likely lower impacts from prop dredging while allowing for more efficient harvest of bay scallops. Those areas too deep for hand harvest may act as potential spawner sanctuaries.

Current knowledge of bay scallop dredging as well as impacts from other gears indicate that they have impacts on SAVs which could result in indirect impacts on bay scallop juveniles. Prop scarring has the potential to have negative impacts on SAVs as coastal populations continue to grow. Our current management of dredging addresses prop scar impacts to some extent, but more management to address prop scarring and possible loss of habitat for juveniles needs to be considered.

#### IV. CURRENT AUTHORITY

North Carolina Fisheries Rules for Coastal Waters (15A NCAC)

03K .0501 Bay scallops-seasons and harvest limits

03K .0503 Prohibited bay scallop dredge

#### V. MANAGEMENT OPTIONS/IMPACTS

(+ potential positive impact of action)

(- potential negative impact of action)

##### A. *Status quo*

- + No additional regulation
- Continued possible impacts to juvenile bay scallops from reduced settlement area lost to dredging and prop scarring

##### B. Partition dredging activities from hand harvest activities based on water depth.

- + Decreases the amount of SAV affected by dredging
- + Decreases the amount of SAV affected by prop scarring
- + Reduces impacts to juveniles